



(U) Bringing Target Templating Tools to Analysts

FROM: SIGINT Development - Strategy and Governance (SSG)

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This is the follow-up to the recent article [Target Templating -- The Way Ahead](#) (U)

(S//SI) SIGINT Development is predominantly the anticipation and discovery of unknowns -- unknown targets, unknown signals, yet-to-be-detected target activity, etc. Target Templating is a unifying framework for conducting SIGINT Development. In this article, we will discuss what [SIGINT Development Strategy and Governance](#) (SSG) is doing in the near and long term to bring Target Templating tools to analysts.

(C) The graphic of the nine-layer [Target Templating model](#) may already be familiar to you. SSG has converted this model into a [business process diagram](#) that identifies the participants in Target Templating and their role in the Templating process. This process embodies the goals of [Transformation 2.0](#) by showing how our IC/Academic/Industry/Cryptologic Partners, AP and DA personnel, and IAD contribute to the Templating process. Using the diagram as a model for the future of Templating, the Target Templating Implementation Strategy identifies four vectors for making Templating an integral part of Sustained Mission, as well as SIGINT Development. In this article, we focus on the Enabling Technology vector.

(S//SI) The Enabling Technology vector addresses how to integrate information from various databases to visualize and automatically update a Target Template. SSG has partnered with [Information Visualization in Technology Services](#), the [Social Network Analysis Center](#) (SNAW), the [Knowledge System Prototype](#) (KSP) program, the [Target Analysis Center](#) (TAC) and the [Network Analysis Center](#) (NAC), to develop a prototype in [RENOIR](#) that queries the KSP and displays data that visually correlates social networks, communications events and logical and physical communications networks.

(S//SI) When fully developed, this tool will be interoperable with SNAW tools for detailed analysis of social networks, communications event tools for detailed analysis of communications events and NAC tools for detailed analysis of communications networks, including vendor components and network vulnerabilities, thus visualizing the top four layers of the Target Template (Target Domain, Supporting Infrastructure, Technology, Vulnerabilities). SSG expects the initial prototype to be completed in 2005. In the following two years,, the prototype will address the next five layers of the Template (Capabilities, Access, Results, Dedision, Execution) in order to link communications networks to access and collection affecting a given target.



(S//SI) Through ongoing collaboration with systems engineers and solution developers, SSG will ensure the Target Template prototype does not become just an SRTD documentation tool, but a corporate software service to analysts, access developers, global event and collection managers and others who require an automatic, synthesized, up-to-date picture of target activity and the SIGINT opportunities available/under way against a particular target.

(U) SIGINT Development Strategy and Governance (SSG) is also working with a number of organizations to bring Target Templating tools to analysts in the near term as other Templating tool development efforts move from prototypes into mature systems. **CmapTools** is being used as an interim tool.

(U) CmapTools is a concept modeling tool that supports the capture, presentation, enhancement and analysis of knowledge in an interactive graphical display. Based on over 40 years of cognitive research, CmapTools has caught the attention of many organizations and programs.

SSG recognized its suitability as an interim Target Templating tool for capturing and modeling Target Templates. One goal in using CmapTools is to construct a sharable Target Template that captures what is known and unknown about current and potential targets, facilitating the systematic examination of knowledge gaps at every layer of the Template.

(U) A second goal in using CmapTools is to **develop a corporate memory**; what have I learned about Target A that can be applied to Targets B, H, and T? What parts of the Target Template for Target A can I reuse when starting to build a Template for Target C? How easy it is to link/reuse this knowledge in other Templates? The strength of CmapTools is its graphical depiction of knowledge in the form of concepts (boxes) and the relationships (links) between them, generating visualizations (concept maps) that can be more quickly comprehended than text.

(U) Concept maps (Cmaps) can be linked in order to drill from target knowledge, down into exploitation opportunities, collection tasks, and lessons learned from the templating process. In this way Templates can be interlinked, showing relationships between targets and target development issues/solutions. A series of inter-connected cmaps, representing layers of the Target Template, can be used in a number of ways. Analysts, new to a target office can use the cmaps to come up to speed on a target.

(U) Product lines working on overlapping target issues can pool their target and SIGINT knowledge into sharable cmaps, facilitating joint assessment of critical areas for target development, target issues that require additional resources and forms of gap analysis. Analysts can also link reports, graphics, spreadsheets, hyperlinks and other documents to a concept on a cmap. Cmaps are exportable in HTML and XML formats, so they can be viewed from a web page ([see example](#)). CmapTools is also part of the [Analysis & Production Analytic Tool Strategy](#) (APATS). Persons interested in CmapTools can contact [REDACTED] ([REDACTED]), Technical Leader, SIGDEV Learning Portal.

(U) For information on the Target Templating Implementation Strategy, please contact [REDACTED] ([REDACTED]), Technical Leader, Operations Orchestration Portfolio in SSG. For questions on using CmapTools or Templating consultations for product lines or IMTs, please contact [REDACTED] ([REDACTED]) or [REDACTED] ([REDACTED]).

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